CONNECTORIZED MULTIPLEX SHELF (MS/WC7, MS/WC5, MS/C7 AND MS/C6), 628001, 628005, 628011 AND 628015 (FOR 23-INCH BAYS) GENERAL DESCRIPTION

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1. GENERAL

1.01 This Section provides a general description of the ITT D448 multiplex shelf, 628001, 628005, 628011, and 628015 (Fig. 1).

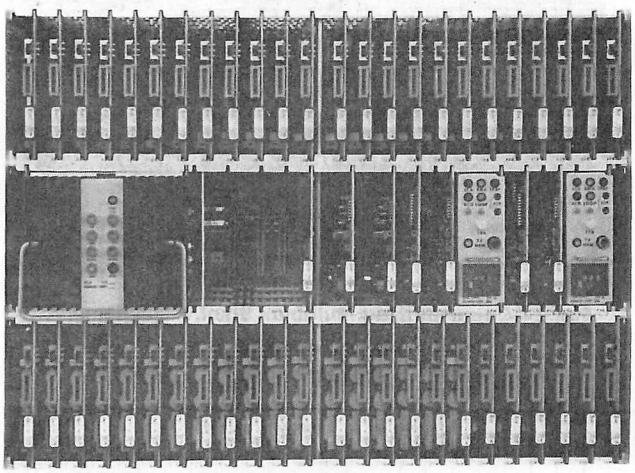

Fig. 1—Connectorized Multiplex Shelf

1.02 This Section has been reissued to add information on the Group -003 multiplex shelf which is used with dataport channel units.

1.03 The shelf provides the mounting for up to 48 D448 channel units (2 digroups) and the D448 common equipment.

2. DESCRIPTION

2.01 The shelf mounts on a 23-inch relay rack and occupies ten mounting positions. Installation and test procedures for the shelf are provided in Section ITTR-18-405. The channel units and common equipment units which may be mounted in the shelf are listed in Section ITTR-18-001.

2.02 The shelf is available in four versions. The differences in the versions are described in Table A. Each shelf is available in Groups -001 and -003. The shelves are identical, except the Group -003 shelf is dataport compatible and has minor wiring changes to the shelf backplane timing options. The channel unit leads which are available at each VF drop connector are listed in Table B.

TABLE A

PART NO.	MNEMONIC	CONNECTORIZATION FORMAT
628001*	MS/WC7	Universal interface; WE compatible; 7 connectors per digroup
628005*	MS/WC5	Standard interface; WE compatible; 5 connectors per digroup
628011	MS/C7	Universal interface; 7 connectors per digroup
628015	MS/C6	Standard interface; 6 connectors per digroup

*Factory-equipped with test interface unit (TIU), 628455

2.03 The shelf is constructed of die-cast aluminum with sheet-metal sideplates. The backplane consists of an epoxy-glass printed circuit board (PCB) and connectors of various types. The backplane is shown in Fig. 2. An identification label, located on the inside of the left sideplate in the top mounting section of the shelf, indicates the shelf mnemonic (MS/WC7, MS/WC5, MS/C7, or MS/C6), part number, and issue letter.

TABLE B

VF DROP CONNECTOR DESIGNATION	CONNECTORIZED LEADS ON							
	628001		628005		628011		628015	
	TIP	RING	TIP	RING	TIP	RING	TIP	RING
P25A/P25B	E	EB	E	EB	E	M/ATB	E	M/ATB
P26A/P26B	1/S	2	1/S	2	1/S	2	1/S	2
P27A/P27B	T	R	T	R	T	R	T	R
P28A/P28B	M/ATB	MB	M/ATB	MB	EB	MB	EB	MB
P29A/P29B	T1/A	R1/B	T1/A	R1/B	T1/A	R1/B	T1/A	R1/B
P30A/P30B	NT	NR	Not Supplied		NT	NR	Not Supplied	
P31A/P31B	PC/OS	HS	Not Supplied		PC/OS	HS	PC/OS	HS

2.04 The shelf is functionally divided into three mounting sections. The bottom and top sections provide mounting for Digroup A and Digroup B channel units, respectively. The middle section provides mounting for common equipment units. Marking strips are located below each mounting section which identify each mounting position. Mounting positions, identified by connector, are shown in Fig. 3.

2.05 Each common equipment connector is equipped with a polarizing key. This key prevents a unit from being mounted in the wrong shelf position.

2.06 Two central office (C.O.) equalizers, 628045-0, are mounted on the T1 outputs of the shelf (connectors J7C and J8C) for Mode 3 operation. These equalizers may be replaced with equalizers for other cable lengths. An equalizer can be placed on connector J5C when the shelf is used in Mode 1, 2, or 4 operation.

2.07 The 628001 and 628005 are equipped with a TIU, 628455, in position J6C. The TIU is used with the automated test and alignment unit (ATAU), 628450.

2.08 Factory wiring on the shelf consists of both printed circuit wiring and point-to-point wiring via wire-wrap pins. Customer connections to the shelf are made via 25-pair VF drop connectors (for VF and signaling connections), wire-wrap pins (for alarm, high frequency, and some signaling connections), and a terminal block (for power connections).

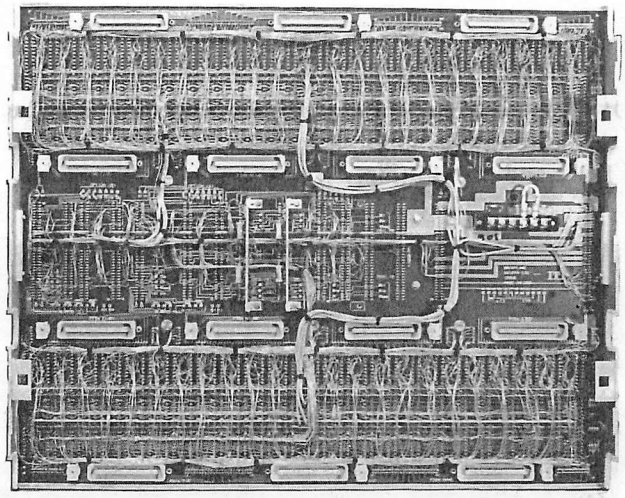

Fig. 2—Connectorized Multiplex Shelf (Backplane)

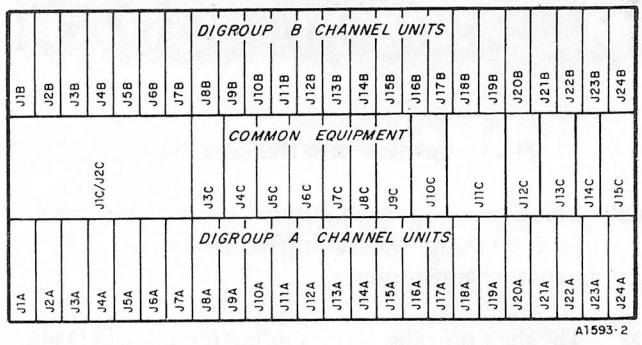
MULTIPLEX SHELF
FRONT VIEW
DIGROUP B CHANNEL UNITS
J1B J2B J3B J4B J5B J6B J7B J8B J9B J10B J11B J12B J13B J14B J15B J16B J17B J18B J19B J20B J21B J22B J23B J24B
COMMON EQUIPMENT
J1C/J2C J3C J4C J5C J6C J7C J8C J9C J10C J11C J12C J13C J14C J15C
DIGROUP A CHANNEL UNITS
J1A J2A J3A J4A J5A J6A J7A J8A J9A J10A J11A J12A J13A J14A J15A J16A J17A J18A J19A J20A J21A J22A J23A J24A
A1593-2

Fig. 3—Mounting Positions

3. OPTIONS

3.01 The shelf is equipped with strapping option posts on the backplane for setting alarm timing, ACO operation, channel sequence, CCIS compatibility, and terminal synchronization options. Detailed information on option selection is provided in Section ITTR-18-405.

4. SPECIAL FEATURES

4.01 A circuit assignment card supplied with the shelf not only provides room for listing circuit assignments, but also for listing the mode of operation and the above option settings. This card may be mounted either in the shelf or on the rack flange. Installation information is provided in Section ITTR-18-405.

4.02 Labels on the inside of the backplane cover show the locations of the backplane strapping option posts and give instructions on setting these options.

5. TECHNICAL SUMMARY

5.01 A summary of technical specifications for the multiplex shelf is given in Table C.

TABLE C

ITEM	SPECIFICATION
DIMENSIONS	
Height Width Depth	17.0 in. (43.2 cm) 23.0 in. (58.4 cm) 12.0 in. (30.5 cm)
WEIGHT (Empty)	20.0 lb (9.1 kg)

6. REPLACEABLE PARTS

6.01 Field-replaceable parts for the multiplex shelf are listed in Table D.

TABLE D

ITT PART NO.	NAME	QUANTITY
628045-000-001†	C.O. Equalizer (EQL1)	2
628455-000-001	TIU	1

†May be replaced with other equalizers, refer to Section ITTR-18-045 for information on all equalizers.

7. REFERENCES

7.01 The engineering drawings listed in Table E were used in the preparation of this Section.

TABLE E

TYPE	DRAWING NO.
Assembly	628001-000
Assembly	628005-000
Assembly	628011-000
Assembly	628015-000

7.02 Related information on the multiplex shelf may be found in the ITTR Sections referenced in Table F.

TABLE F

TITLE	SECTION NO.
D448 PCM Trunk Carrier System — General Description	ITTR-18-001
Central Office Equalizer (EQL), 628045 — General Description	ITTR-18-045
Connectorized Multiplex Shelf (MS/WC7, MS/WC5, MS/C7 and MS/C6), 628001, 628005, 628011 and 628015 (For 23-Inch Bays) — Option Selection, Installation and Pretest	ITTR-18-405